

**Before the
Federal Communications Commission
Washington, D.C. 20054**

In the Matter of)

Service Rules for the 698-746, 747-762 and)
777-792 MHz Bands)

WT Docket No. 06-150

Implementing a Nationwide, Broadband,)
Interoperable Public Safety Network in the)
700 MHz Band)

PS Docket No. 06-229

COMMENTS OF THE COMMONWEALTH OF VIRGINIA

The Commonwealth of Virginia, by its counsel, hereby submits comments in response to the Third Further Notice of Proposed Rulemaking¹ in the above matter ("Third FNPRM").

INTRODUCTION

While the Commission has asked for a range of comments on a number of 700 MHz issues, the focus of the comments by the Commonwealth of Virginia ("Commonwealth") will be on narrowband relocation issues: relocation dates, reimbursement caps, cut-off date and funding mechanism (paragraphs 427-460 of the Third FNPRM).

BACKGROUND

Historic Background. The Commonwealth is in the process of implementing the Statewide Agencies Radio Systems ("STARS") to create a new statewide, state of the art interoperable system to support public safety and homeland security needs.

The Commonwealth signed a final contract with Motorola in July 2004 for over \$329 million to construct STARS on a turnkey basis. With amendments related to

¹ Adopted and released September 25, 2008, with notice published at 73 Fed. Reg. 57750 (October 3, 2008).

specific tower sites, adding two new participating agencies, and additional subscribers, the cost is now in excess of \$338 million, with no allowances for the addition of new projects. STARS facilitates interoperability between 21 participating state agencies, federal agencies, and 134 local communications systems in Virginia. STARS utilizes 700 MHz portable radios and vehicular repeaters, all in the portion of 700 MHz spectrum now licensed for public safety broadband purposes that is to be reclaimed by the FCC.

On August 10, 2007, the FCC released its Second Report and Order in the 700 MHz proceeding², revising the 700 MHz “band plan” and service rules in order to auction licenses for new commercial broadband services and a nationwide public safety broadband network. In establishing the new 700 MHz band plan, the Commission shifted the frequencies on which existing 700 MHz public safety licensees could operate, requiring the reconfiguration of their systems. Consistent with past rebanding efforts, the Commission attempted to make provision for existing licensees to be made whole through reimbursement of their reconfiguration costs, in this case by the auction winner for the new public safety nationwide broadband license.

Unfortunately, the Commission made inadequate provisions in its decision for an existing 700 MHz public safety licensee, such as the Commonwealth of Virginia, that had a large network build-out and was in the process of deploying its network. In particular, the Commission:

- Prohibited existing public safety licensees from deploying any new narrowband equipment after August 30, 2007 on their licensed frequencies that are in the newly designated broadband segments of the 700 MHz band;

² PS Docket No. 06-229, WT Docket No. 96-86, Second Report and Order, 22 FCC Rcd 15289 (2007)

- Limited reimbursements for reconfiguration costs to that equipment which was installed and in operation as of August 30, 2007; and
- Placed a \$10 Million cap on aggregate reimbursements to be paid to all incumbent 700 MHz public safety licensees.

The net effect would have been to block further deployment of STARS, and prevent the Commonwealth from recovering most of its very significant 700 MHz reconfiguration costs.

The Commonwealth filed a waiver request³ on August 30, 2007, and a Petition for Reconsideration⁴ on September 24, 2007, asking the Commission to grant the Commonwealth a waiver or reconsider these three issues. The Commonwealth also filed Joint Reply Comments⁵ with Pierce Transit on October 26, 2007. While the Commission granted a very limited temporary waiver to the Commonwealth in November, 2007 to allow it to continue some equipment installation⁶, the Commonwealth has otherwise not received any relief from the Commission. The Commonwealth met with Commission staff later in November, and filed a statement for the record⁷ in advance of the D block auction in February, 2008, seeking to focus attention on the Commonwealth's concerns. In June, 2008, the Commonwealth filed Comments in response to the Second Further Notice of Proposed Rulemaking⁸ ("Second FNPRM").

New Cost Information. While the Commonwealth appreciates the efforts of the Commission and Commission staff in trying to address 700 MHz issues in a manner

³ Letter from Captain John E. Furlough, Communications Officer, Virginia State Police to Marlene Dortch, Secretary, FCC.

⁴ Petition for Reconsideration, PS Docket No. 06-229, WT Docket No. 96-86.

⁵ Joint Reply Comments, PS Docket No. 06-229, WT Docket No. 96-86.

⁶ Order, adopted and released November 15, 2007, FCC 07-195.

⁷ Statement for the Record in PS Docket No. 06-229, WT Docket No. 96-86, filed January 23, 2008.

⁸ Comments in PS Docket No. 06-229, WT Docket No. 96-86, filed June 19, 2008.

which protects public safety communications, the Commonwealth respectfully suggests that the proposals in the Third NPRM still fall far short of this goal.

The lack of detailed factual information on the costs of relocation has hampered both the public safety agencies which have offered comments, and the Commission staff in considering this issue. The Commonwealth has been attempting diligently since the release of the Second Report and Order to determine what its actual relocation costs would be, but since these required development of new Digital Vehicular Repeater System (DVRS) hardware filters and technology by Motorola and/or its subcontractor Futurecom⁹, and development of a relatively massive replacement effort for the Commonwealth's 2900 public safety vehicles, this has not been an easy task.

The Commonwealth's current cost estimate for the 700 MHz reconfiguration cost of STARS is \$14,260,241.

This estimate was developed by the Commonwealth's consultant, CTA Communications, which has some 25 years of experience in communications planning and implementation, including numerous 800 MHz rebanding projects.

This estimate consists of the following components:

- | | |
|---|-------------|
| (a) Motorola firm quote (received in October 2008) for reconfiguring certified equipment, as adjusted for 2009 and 2010 equipment and labor costs, and portable units two-touch programming approach. | \$5,910,849 |
| (b) Motorola firm quote (received in October 2008) for reconfiguring non-certified equipment, as adjusted for 2009 and 2010 equipment and labor costs, and portable units two-touch programming approach. | \$5,505,892 |

⁹ A new DVRS filter has been developed by Futurecom, but Motorola believes it may cause unacceptable interference, and more development work on a modified filter may be necessary for a filter design capable of operating in the new consolidated band.

(c) Estimated cost for templates for 100 DVRS and 200 portable radio codeplugs (each portable radio requires two templates), as adjusted for 2009 and 2010 labor costs	\$ 220,500
(d) CTA Communications management fee for engineering and project administration services (including project scheduling, trainer training, and performance and acceptance testing)	\$1,250,000
(e) Communications Division costs (including management oversight, user training, user scheduling, and codeplug design and testing)	\$ 198,000
(f) Includes fuel costs and labor, some of which may be overtime, for users travels to eight reconfiguration locations statewide.	<u>\$1,175,000</u>
	\$14,260,241

More specific information on each of these components can be provided upon request.

The first four categories, totaling almost \$13 million, are clear, hard, out-of-pocket cost payments to third parties which will be incurred directly on the STARS project alone; the final two categories are costs incurred by the Commonwealth which are nevertheless real, hard costs. None of these costs involve unrelated improvements, CAPRAD modification, channel assignments or amendments to regional plans or narrowband licenses, which Paragraph 457 of the Third FNPRM provides are not reimbursable.

The principal change from the earlier estimate provided by Motorola has been caused by the final cost of DVRS hardware upgrades, statewide reconfiguration at eight locations, updating approximately 300 unique codeplugs, and the need to reprogram the portable radios on a two-touch basis. Before the DVRS hardware upgrades were

designed, Motorola provided the Commonwealth with an estimate of \$1,000 per unit; but that was apparently for Motorola services only, and did not include the cost of hardware or any other needed cost. This definitive cost information was not known by the Commonwealth until October 2008, and could not have been provided in response to the Second FNPRM or earlier filings.

From a time standpoint, it now seems clear that Virginia will not be able to reband until well over one year from the date that the Commonwealth is assured of full reimbursement.

Due to the time needed to allow for programming the portable radios, remanufacture hardware of over 2,900 units, the phased replacement of filters (requiring three hours of bench time to change the filters for each of the 2,902 units located in vehicles statewide which will be necessary to keep Virginia State Police and other public safety units available and on the state highways at all times), the Commonwealth will need the maximum time latitude possible to accomplish rebanding without harming public safety needs.

INTRODUCTION

Virginia appears to be in a unique position; apparently the only state which had already commenced, at an immense cost¹⁰ to implement a state of the art interoperable system to support public safety and homeland security needs, and was in the middle of installing this statewide system as of August 30, 2007. Virginia began work on STARS planning over a decade ago, and accelerated this after the 9/11 attack on the Pentagon. Virginia took the lead in an early deployment of a statewide interoperable public safety

¹⁰ \$338 million in state funds, authorized in better economic times, plus \$20 million to CTA for engineering and quality control.

system; yet the Commission's proposal would penalize Virginia for these early and substantial efforts by limiting reimbursement. As Commissioner Tate has noted, "The Commission's rules should provide incentives, not disincentives, for early build out. Those public safety entities that are already deploying –whether funded by local, State or Federal tax dollars – should not be penalized for their efforts".¹¹

This early deployment by Virginia and the relatively massive scope of that statewide deployment clearly put Virginia on a different scale than other public safety entities seeking 700 MHz relocation cost recovery. Other states and localities may have some 700 MHz equipment to be reconfigured, but none individually (or perhaps even in the aggregate) appear to be on the same scale or scope as the relocation that Virginia will require.

While the Commonwealth appreciates that the Commission proposes to accomplish this in part by effectively setting Virginia (and Pierce Transit) aside in a special reimbursement waiver category for PSHSB administration, the Commonwealth submits that the waiver mechanism needs to be more broad, both as to time and as to expense. In addition, the Commonwealth needs to be the final authority as to technical and operational risk for STARS, not the Public Safety Broadband Licensee ("PSBL").

DISCUSSION

1. Relocation Date.

The Commonwealth applauds the Commission's recognition that an extension of the February 17, 2009 deadline is warranted¹², but suggests that establishing a rigid

¹¹ Statement of Commissioner Deborah Taylor Tate on the Third NPRM. p. 2.

¹² Third FNPRM, ¶ 436.

deadline of twelve months from the availability of funding is impractical, at least in the case of Virginia.

The Commission's proposal to extend the relocation date to twelve months from the date on which relocation funding is made available¹³ may well be generally feasible for public safety agencies across the country, but not for a system with the scope and relocation complexity of STARS.

The Commonwealth has no further funds for STARS. The Commonwealth has a fiscal year 2009 budget shortfall of approximately one billion dollars. Actions have been taken within the last month to cut state agency budgets by \$279 million and lay off hundreds of state employees. Further and deeper budget cuts are expected in the next fiscal year¹⁴. The Commonwealth cannot place an order with Motorola for the hardware, or enter into contracts for installation and process management, until it knows that adequate reimbursement funding is available. If there are any Commonwealth funds used for this 700 MHz relocation, a procurement process will need to occur. The Motorola proposal submitted to the Commonwealth is a rough order of magnitude schedule cost estimate for the equipment portion of the STARS relocation costs, but CTA and the Commonwealth believe that after factoring in 3-4 hours of upgrade time for over 2,900 vehicular repeaters located statewide, with limited rotating stock, updating 300 codeplugs, reprogramming portable radios on a two-touch basis and performing

¹³ Third FNPRM, ¶ 437.

¹⁴ Governor Kaine's October 2008 Reduction Plan for Fiscal Year 2009, dated October 8, 2009, www.governor.virginia.gov/tempcontent/FinalPlan_10-8.pdf

installations statewide to complete installation and vehicle scheduling issues to maintain public safety, means that it may take closer to twenty-four months.¹⁵

A rigid 12-month deadline will not work for a system of the size and replacement complexity of STARS. The Commonwealth would request that the Commission delegate authority to the PSHSB to grant waivers for relocation beyond twelve months in the case of a state-wide system covering more than one Public Safety Region, with the understanding that waivers will be granted liberally as necessary to complete the transition.

2. \$27 Million Cap Relocation Cap

The Commonwealth applauds the Commission's recognition that a national \$10 million reimbursement cap was too low, but unfortunately must point out that the new \$27 million cap set by the Commission is still inadequate.

Virginia's relocation costs for STARS alone will be \$14.26 million as outlined above (and we expect that other Virginia public safety systems or users may have some 700 MHz relocation reimbursable costs). The Commonwealth is also concerned that the Commission's region-by-region cap language could be construed to limit a Region 42 expense cap to \$2,614,800¹⁶.

It may be that the Commission's estimates for costs outside of Virginia are correct; but the allocation of \$2.6 million reimbursement to Virginia in the Third

¹⁵ The Commonwealth will need to retain a consultant and project manager to train technicians to perform filter exchange and training, perform systems engineering, rewrite unique codeplugs for 21 agencies and perform testing, as well as contract for installation center and develop a vehicle rotation schedule.

¹⁶ Since Virginia also covers a part of Region 20, it is not clear how this would be allocated, but it is still far short of \$14.26 million actual costs for STARS alone.

FNPRM¹⁷ needs to be increased to \$16 million for Virginia and the regional expense cap system clarified or adjusted since Virginia is in Regions 42 and 20.

The Commonwealth would continue to respectfully suggest, as a matter of principle, that no “cap” on public safety relocation costs is appropriate given the very substantial proceeds which will be realized from this D Block auction, and the fact that unforeseen circumstances may increase public safety costs. If public safety entities are being required to vacate spectrum to make way for commercial users, then the commercial users should pay the full relocation costs of the public safety entities, who generally lack budget flexibility or surplus funding to allow them to absorb these costs.

If the Commission is determined to use a cap approach, however, the Commonwealth would ask that (i) the cap be increased from \$27 million to at least \$40 million, to adjust STARS’ share of the reimbursable expenses from \$2.6 million out of \$27 million to \$14.26 million out of \$40 million. The region-by-region caps on reimbursement must be increased accordingly, and the regional cap system must be clarified to provide that while an individual bidder on a particular region will incur no more than that regional cap in relocation expenses, that a statewide public safety entity operating in more than one Public Safety Region is not limited in its reimbursement to the caps allocated for its region or regions, but may draw down from the entire national pool of relocation expenses.

¹⁷ The Commonwealth included a figure of \$2.9 million in equipment costs based on the then-current Motorola cost estimate reported by the Commonwealth in its June 19, 2008 Comments on the Second FNPRM, p. 8; but that \$2.9 million did not include all the costs required to install filters and hardware and manage that process. The Commonwealth estimated its overall hard costs at \$7 million in those Comments, including the \$2.9 Motorola estimated costs. Comments on the Second FNPRM, page 7. The recent escalation of the Motorola costs alone to over \$11 million has changed this.

3. August 30, 2007 Cut Off Date

The Commonwealth appreciates very much that the Commission has tentatively concluded that the parties who have been granted waiver relief to date, and who have sought reimbursement for relocating equipment which is deployed after August 30, 2007 pursuant to such a waiver, will be eligible for reimbursement through delegated authority to the PSHSB¹⁸. The Commonwealth understands this to mean that the 700 MHz relocation costs of its STARS system, as contracted for prior to that date, will qualify for full reimbursement regardless of whether deployment occurred before or after August 30, 2007. The Commonwealth strongly supports this tentative conclusion, and urges that it be made final.

However, as noted above, the \$3 million cost estimate is far too low, with \$14.26 million necessary for the Commonwealth alone. The Commonwealth accordingly requests that funding for its relocation costs be increased as previously noted.

4. Funding Mechanism.

The Commonwealth is concerned that the administrative duties assigned to the PSBL are excessively broad. The Commission's language charging the PSBL with administration of narrowband relocation plans must be clarified to indicate that the PSBL will report on 700 MHz equipment vendors, makes and models, and potential consultants to perform necessary technical changes, and will develop a preliminary schedule based upon information, supplied by affected public safety agencies to accomplish this, but must make it clear that actual selection of any vendors and equipment is dependent on state concurrence, and that any deadlines are subject to change and extensions.

Specifically, the PSBL must be required to seek the Commonwealth's concurrence on all

¹⁸ Third FNPRM, ¶ 451.

issues relating to our radio system and its users. In considering regional plans and reimbursement strategies, any plans for Virginia must include both Region 42 and Region 20.

Whether the PSBL or a Transition Administrator is used, any plan administrator should also be charged with accommodating interstate radio frequency coordination. Use of 700 MHz radio channels near state borders is problematic at present due to the complexity of negotiating channel allocations with neighboring states which have different implementation schedules and approaches to 700 MHz public safety network implementation. The current lack of interstate frequency coordination threatens a successful 700 MHz transition and deployment.

CONCLUSION

The Commonwealth is encouraged by Commissioner Copps' statement that "...the gold standard here is whether we come up with a system that **actually delivers for public safety.**"¹⁹ The Commonwealth urges the Commission to adopt the changes recommended herein, so that the 700 MHz relocation process lives up to that gold standard, and truly protects, and delivers for, public safety.

The Commonwealth respectfully requests that the Commission establish a waiver process to provide an extended and flexible deadline for the relocation date applicable to a statewide public safety system, allow the owner of a statewide radio public safety system (such as the Commonwealth) to obtain reimbursement for all of its costs incurred (whether directly or paid to third parties) in this installation for a statewide public safety radio system which was contracted for and in the process of construction and

¹⁹ Concurring Statement of Commissioner Michael J. Copps on the Third NPRM, p. 1, emphasis supplied.

implementation as of the date of the Second Report and Order, modify the funding mechanism to make it clear that the Commonwealth can be fully reimbursed for its actual relocation costs and direct that the PSBL or the administrator is to provide information to, and obtain the concurrence of the Commonwealth, and is to accommodate interstate coordination of 700 MHz frequencies.

Respectfully submitted,

THE COMMONWEALTH OF VIRGINIA

BY



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Dated: November 3, 2008

CERTIFICATE OF SERVICE

I hereby certify that on this 3rd day of November, 2008, a copy of the foregoing
Comments of the Commonwealth of Virginia were sent by email to each of the persons
listed on the attached service list.

A handwritten signature in black ink, appearing to read "P. E. Broadbent, Jr.", is written over a horizontal line.

Peter E. Broadbent, Jr.

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